UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

VIA ELECTRONIC MAIL
DELIVERY RECEIPT REQUESTED

Abraham Chavez
d/b/a A & R Custom Chrome Plating
anrplating@comcast.net

Re: Finding of Violation
A & R Custom Chrome Plating
Chicago IL, 60629

Dear Abraham Chavez:

The U.S. Environmental Protection Agency is issuing the enclosed Finding of Violation (FOV) to Abraham Chavez, doing business as A & R Custom Chrome Plating (you or facility), under Section 113(a) of the Clean Air Act, 42 U.S.C. § 7413(a). We find that you are violating the National Emission Standards for Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks at your Chicago, IL facility.

Section 113 of the Clean Air Act gives us several enforcement options. These options include issuing an administrative compliance order, issuing an administrative penalty order and bringing a judicial civil or criminal action.

We are offering you an opportunity to confer with us about the violations alleged in the FOV. The conference will give you an opportunity to present information on the specific findings of violation, any efforts you have taken to comply and the steps you will take to prevent future violations. In addition, in order to make the conference more productive, we encourage you to submit to us information responsive to the FOV prior to the conference date.

Please plan for your facility's technical and management personnel to attend the conference to discuss compliance measures and commitments. You may have an attorney represent you at this conference.

The EPA contact in this matter is Brittany Cobb. You may call her at (312) 353-1248 or email her at cobb.brittany@epa.gov to request a conference. You should make the request within 10 calendar days following receipt of this letter. We should hold any conference within 30 calendar days following receipt of this letter.

Sincerely,

SARAH MARSHALL

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Date: 2022.09.16 10:28:05 -05'00'

Sarah Marshall
Supervisor, Air Enforcement and Compliance Assurance Section (MI/WI)

Enclosure: Small Business Resources Information Sheet

cc: Kent Mohr, Manager
Compliance Section
Bureau of Air
Illinois Environmental Protection Agency
Kent.Mohr@Illinois.gov

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5

IN THE MATTER OF:	)	
	)	
Abraham Chavez	)	**FINDING OF VIOLATION**
d/b/a A & R Custom Chrome Plating	)	
Chicago, IL	)	
	)	**EPA-5-22-IL-16**
Proceedings Pursuant to	)	
the Clean Air Act,	)	
42 U.S.C. §§ 7401 et seq.	)	
	)	

FINDING OF VIOLATION

The U.S. Environmental Protection Agency (EPA) finds that Abraham Chavez, doing business as (d/b/a) A & R Custom Chrome Plating, is violating Section 112 of the Clean Air Act (CAA), 42 U.S.C. § 7412. Specifically, Abraham Chavez, d/b/a A & R Custom Chrome Plating (A & R Chrome) is violating the National Emission Standards for Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks at 40 C.F.R. Part 63, Subpart N as follows:

Statutory and Regulatory Authority

1. Pursuant to Section 112(b) of the CAA, 42 U.S.C. §7412(b), EPA designates hazardous air pollutants (HAPs), which present or may present a threat of adverse effects to human health or the environment.

2. Section 112(c) and (d) of the CAA, 42 U.S.C. § 7412(c)–(d), require EPA to publish a list of categories of sources that EPA finds present a threat of adverse effects to human health or the environment due to emissions of HAPs, and to promulgate emission standards for each source category. These standards are known as "national emission standards for hazardous air pollutants" (NESHAP). EPA codifies these requirements at 40 C.F.R. Part 63.

3. 40 C.F.R § 63.2 defines "area source" as any stationary source of hazardous air pollutants that is not a major source.

4. 40 C.F.R § 63.2 defines "major source" as any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants.

NESHAP Subpart N - National Emission Standards for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks

5. Pursuant to Section 112(d) of the CAA, 42 U.S.C. § 7412(d), EPA issued final standards that limit the discharge of chromium compound air emissions from existing and new hard chromium

electroplating, decorative chromium electroplating, and chromium anodizing tanks at major and area sources. 73 Fed. Reg. 4948 (January 25, 1995).

6. Pursuant to 40 C.F.R. § 63.340(a), the NESHAP Subpart N for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks (Subpart N) applies to new and existing affected sources, which is each chromium electroplating or chromium anodizing tank at facilities performing hard chromium electroplating, decorative chromium electroplating, or chromium anodizing.

7. Subpart N, at 40 CFR § 63.341, defines, in relevant part, an "existing affected source" as a decorative chromium electroplating tank, the construction or reconstruction of which commenced on or before February 8, 2012.

8. Subpart N, at 40 CFR § 63.343(a), provides that the owner or operator of an existing affected source shall comply with the emission limitations in 40 C.F.R. § 63.342 no later than September 19, 2014.

9. Subpart N, at 40 C.F.R. § 63.341(a), defines "decorative chromium electroplating" as the process by which a thin layer of chromium (typically 0.003 to 2.5 microns) is electrodeposited on a base metal, plastic, or undercoating to provide a bright surface with wear and tarnish resistance.

10. Subpart N, at 40 C.F.R. § 63.342(d)(3), specifies that for all existing, new, or reconstructed decorative chromium electroplating tanks using a chromic acid bath and all existing, new, or reconstructed chromium anodizing tanks, during tank operation, each owner or operator of an existing, new, or reconstructed affected source shall control chromium emissions discharged to the atmosphere from that affected source, and if a chemical fume suppressant containing a wetting agent is used, the wetting agent must control emissions discharges by not allowing the surface tension of the electroplating or anodizing bath contained within the affected tank to exceed 40 dynes/cm (2.8×10^{-3} lbf/ft), as measured by a stalagmometer or 33 dynes/cm (2.3×10^{-3} lbf/ft), as measured by a tensiometer at any time during tank operation.

11. Subpart N, at 40 C.F.R. § 63.341(a), defines "tank operation," in pertinent part, as the time in which current and/or voltage is being applied to a chromium electroplating tank.

12. Subpart N, at 40 C.F.R. § 63.341(a), defines "wetting agent" as the type of commercially available chemical fume suppressant that materially reduces surface tension of a liquid.

13. Subpart N, at 40 C.F.R. § 63.341(a), defines "chemical fume suppressant" as any chemical agent that reduces or suppresses fumes or mists at the surface of an electroplating or anodizing bath; another term for fume suppressant is mist suppressant.

14. Subpart N, at 40 C.F.R. § 63.342(d)(4), specifies that after September 21, 2015, the owner or operator of an affected decorative chromium electroplating tank or an affected chromium anodizing tank shall not add perfluorooctane sulfonic acid (PFOS)-based fume suppressants to any affected decorative chromium electroplating tank or chromium anodizing tank.

15. Subpart N, 40 C.F.R. § 63.341(a), defines "PFOS-based fume suppressant" as a fume suppressant that contains one (1) percent or greater PFOS by weight.

16. Subpart N, at 40 C.F.R. § 63.343(b)(1), provides that an owner or operator of an affected source subject to the requirements of Subpart N is required to conduct an initial performance test as required under 40 C.F.R. § 63.7, except if the owner or operator meets all of the requirements under 40 C.F.R. § 63.343(b)(2).

17. 40 C.F.R. 63.7(2) provides, in relevant part, that the owner or operator of the affected source must perform the initial performance test within 180 days of the compliance date for such source.

18. Subpart N, at 40 C.F.R. § 63.343(b)(2), provides that if the owner or operator of an affected source meets all of the following criteria, an initial performance test is not required to be conducted under Subpart N:

i. The affected source is a hard chromium electroplating tank, a decorative chromium electroplating tank or a chromium anodizing tank; and
ii. A wetting agent is used in the plating or anodizing bath to inhibit chromium emissions from the affected source; and
iii. The owner or operator complies with the applicable surface tension limit of 40 C.F.R. § 63.342(c)(1)(iii), (c)(2)(iii), or (d)(2) as demonstrated through the continuous compliance monitoring required by 40 C.F.R. § 63.343 (c)(5)(ii).

19. Subpart N, at 40 C.F.R. § 63.343(c)(5)(i), provides, in part, that during the initial performance test, the owner or operator of an affected source complying with the emission limitations in 40 C.F.R. § 63.342 through the use of a wetting agent . . . shall determine the outlet chromium concentration . . . [and] establish as the site-specific operating parameter the surface tension of the bath using Method 306B, appendix A of Part 63, setting the maximum value that corresponds to compliance with the applicable emission limitation. In lieu of establishing the maximum surface tension during the performance test, the owner or operator may accept 40 dynes/cm, as measured by a stalagmometer, or 33 dynes/cm, as measured by a tensiometer, as the maximum surface tension value that corresponds to compliance with the applicable emission limitation.

20. Subpart N, at 40 C.F.R. § 63.343(c)(5)(ii), provides, in part, that operation of the affected source at a surface tension greater than the value established during the performance test, or greater than 40 dynes/cm, as measured by a stalagmometer, or 33 dynes/cm, as measured by a tensiometer, if the owner or operator is using this value in accordance with 40 C.F.R. § 63.343(c)(5)(i), shall constitute noncompliance with the standards. The surface tension shall be monitored according to the following schedule:

i. The surface tension shall be measured once every 4 hours during operation of the tank with a stalagmometer or a tensiometer as specified in Method 306B, appendix A of 40 C.F.R. Part 63. 40 C.F.R. § 63.343(c)(5)(ii)(A).

ii. The time between monitoring can be increased if there have been no exceedances. The surface tension shall be measured once every 4 hours of tank operation for the first 40 hours of tank operation after the compliance date. Once there are no exceedances during 40 hours of tank operation, surface tension measurement may be conducted once every 8 hours of tank operation. Once there are no exceedances during 40 hours of tank operation, surface tension measurement may be conducted once every 40 hours of tank operation on an ongoing basis, until an exceedance occurs. The minimum

frequency of monitoring allowed by this subpart is once every 40 hours of tank operation. 40 C.F.R. § 63.343(c)(5)(ii)(B).

iii. Once an exceedance occurs as indicated through surface tension monitoring, the original monitoring schedule of once every 4 hours must be resumed. A subsequent decrease in frequency shall follow the schedule laid out in 40 C.F.R. § 63.343 (c)(5)(ii)(B). For example, if an owner or operator had been monitoring an affected source once every 40 hours and an exceedance occurs, subsequent monitoring would take place once every 4 hours of tank operation. Once an exceedance does not occur for 40 hours of tank operation, monitoring can occur once every 8 hours of tank operation. Once an exceedance does not occur for 40 hours of tank operation on this schedule, monitoring can occur once every 40 hours of tank operation. 40 C.F.R. § 63.343(c)(5)(ii)(C).

21. Subpart N, at 40 C.F.R. § 63.343(a)(8), provides that after March 19, 2013, the owner or operator of an affected source that is subject to the standards for decorative chromium electroplating tanks using a chromic acid bath and chromium anodizing tanks codified at 40 C.F.R. § 63.342(d), shall implement the housekeeping procedures specified in Table 2 of 40 C.F.R. § 63.342.

22. Subpart N, at Table 2 of 40 C.F.R. § 63.342, in pertinent part, provides for the following housekeeping procedure: Prior to beginning the buffing, grinding, or polishing operations, the owner/operator must separate all buffing, grinding, or polishing operations that are located in the same room as chromium electroplating or chromium anodizing operations from any affected electroplating or anodizing operation by installing a physical barrier; the barrier may take the form of plastic strip curtains.

23. Subpart N, at 40 C.F.R § 63.346(b)(8), provides that the owner or operator of an affected source shall maintain the records of monitoring data required by 40 C.F.R § 63.343(c) that are used to demonstrate compliance with the standard including the date and time the data are collected.

24. Subpart N, at 40 C.F.R § 63.347(e)(4), provides that the owner or operator of an affected source, not required to complete a performance test, shall submit a notification of compliance status to the Administrator no later than 30 days after the compliance date specified at 40 C.F.R § 63.343(a).

Factual Background

25. A & R Chrome owns and operates an electroplating facility at 4556 W 62nd St., Chicago, IL 60629 (Facility).

26. On June 25, 2021, EPA conducted an inspection of the Facility to evaluate compliance with the CAA.

27. From 2018 to 2021, A & R Chrome reported emitting less than 10 tons of HAP per year from the Facility and thus the Facility is an "area source of HAP emissions," as that term is defined at 40 C.F.R. §§ 63.2 and 63.11504(a)(2).

28. At the Facility, A & R Chrome operates one decorative hexavalent chromium electroplating tank, which is an affected area source under Subpart N. A & R Chrome uses a chemical fume suppressant containing a wetting agent to control the hexavalent chromium emissions.

29. A & R Chrome's decorative chromium electroplating tank has a startup date of February 1, 2006, making the tank an "existing affected source" pursuant to 40 C.F.R. § 63.341.

30. As an existing affected source, A & R Chrome's decorative chromium electroplating tank has a compliance date of September 19, 2014 pursuant to 40 C.F.R. § 63.343(a).

31. During the June 25, 2021 inspection, EPA observed two sandblasters and two polishers in the same room as the chromium electroplating tanks, without a physical barrier between them.

32. On July 6, 2021, EPA requested the following information from A & R Chrome via email: permits; decorative chrome plating emission factors used for annual emission report calculations; 2018, 2019, and 2020 annual emissions reports; Subpart N ongoing compliance status reports for years 2017–2020; and records of surface tension measurements for 2017–present.

33. On July 20, 2021, A & R Chrome provided EPA with the requested information.

34. On July 20, 2021, A & R Chrome also provided EPA with the technical information for the Facility's wetting agent: Fumetrol ® 140 Fume and Spray Suppressant.

35. EPA contacted Atotech, the manufacturer of Fumetrol ® 140 Fume and Spray Suppressant and requested the Safety Data Sheet (SDS) for the product. On October 18, 2021, Atotech provided the EPA with the SDS, which indicated the Fume and Spray Suppressant contains 5–10 percentage concentration of PFOS.

36. A & R Chrome has not conducted an initial performance test at the decorative chromium electroplating tank.

37. In lieu of establishing a maximum surface tension by conducting an initial performance test for the decorative chromium electroplating tank, A & R Chrome has accepted 40 dynes/cm, as measured by a stalagmometer, or 33 dynes/cm, as measured by a tensiometer, as the maximum surface tension value that corresponds to compliance with the applicable emission limitation, as provided under 40 C.F.R. § 63.343(c)(5)(i).

38. A & R Chrome provided EPA with four surface tension laboratory reports for samples taken from the decorative chromium electroplating tank on August 24, 2017, September 26, 2017, and March 2, 2018, and July 9, 2019. The surface tensions were 39 dynes/cm, 39 dynes/cm, 35 dynes/cm, and 41 dynes/cm, respectively, as measured by a tensiometer.

39. A & R Chrome provided EPA with "Operation and Maintenance Program for Surface Tension Compliance with the Chromium MACT Standard" documents for 2017, 2018, 2019, and 2020 (O&M documents), which included Ongoing Compliance Status Reports, Annual Emission Reports and Surface Tension/Operating Hours Recordkeeping Tables (Tables). In the Tables, A & R reported the following surface tension measurements were taken by Scientific Control Labs: 23 dynes/cm on January 26, 2017; 30 dynes/cm on April 12, 2017; 35 dynes/cm on August 23, 2017; 25 dynes/cm on November 21, 2017; 40 dynes/cm on January, 20, 2018; 37 dynes/cm on December 20, 2018; 35 dynes/cm on January 19, 2019; 40 dynes/cm on June 19, 2019; 37 dynes/cm on December 19, 2019; 40 dynes/cm on January 20, 2020; and 37 dynes/cm December 20, 2020.

40. On August 19, 2022, Scientific Control labs informed EPA via email that any measurements taken by Scientific Control labs and identified on Scientific Control labs reports dated before April 1, 2022 were taken with a tensiometer.

41. A & R Chrome reported operating the decorative chromium electroplating tank 8.5 hours in 2017, 30 hours in 2018, 35 hours in 2019 and 8 hours in 2020.

42. On January 3, 2022, under Section 114(a) of the CAA, 42 U.S.C. § 7414(a), EPA issued to A & R Chrome a Request to Provide Information Pursuant to the Clean Air Act (Information Request), which included a request for a copy of Subpart N Notification of Compliance Status required by 40 C.F.R. § 63.347(e).

43. A & R Chrome did not provide a copy of the Subpart N Notification of Compliance Status in response to EPA's Information Request.

44. On August 12, 2022, EPA requested a copy of the Subpart N Notification of Compliance Status required by 40 C.F.R. § 63.347(e) from A & R Chrome via email.

45. On September 1, 2022, in response to EPA's August 12, 2022 email, A & R Chrome provided EPA with Subpart N ongoing compliance status report for 2022 but did not provide a copy of the Subpart N Notification of Compliance Status.

46. To date, A & R Chrome has not provided a copy of the Subpart N Notification of Compliance Status.

47. On September 1, 2022, EPA searched the Air Enforcement and Compliance Assurance Branch's Electronic Document Management System (EDMS) and was unable to locate a copy of A & R Chrome's Subpart N Notification of Compliance Status.

Violations

48. A & R Chrome exceeded 33 dynes/cm, as measured by a tensiometer, on at least September 26, 2017, January 20, 2018, March 2, 2018, December 20, 2018, January 19, 2019, June 19, 2019, July 9, 2019, December 19, 2019, January 20, 2020, and December 20, 2020, in violation of 40 C.F.R. § 63.342(d)(3).

49. A & R Chrome used PFOS-based fume suppressants after September 21, 2015 in its decorative chromium electroplating tank, from September 2017 to the present, in violation of 40 C.F.R. § 63.342(d)(4).

50. A & R Chrome failed to physically separate buffing, grinding, and/or polishing stations from chromium electroplating tanks in the same room prior to beginning the buffing, grinding, or polishing operations, in violation of 40 C.F.R. § 63.343(a)(8).

51. A & R Chrome did not conduct an initial performance test for the chromium electroplating tank prior to March 18, 2015, 180 days after the compliance date, and has continued to fail to conduct an initial performance test for the chromium electroplating tank, in violation of 40 C.F.R. § 63.343(b)(1).

52. By failing to take at least seven (7) surface tensions measurements in 2018 and eight (8) surface tensions measurements in 2019, A & R Chrome failed to measure surface tension once every four (4) hours following an exceedance for at least 40 hours in accordance with the schedule at 40 C.F.R. § 63.343(c)(5)(ii), from January 1, 2018 to December 31, 2019, in violation of 40 C.F.R § 63.343(c)(5)(ii).

53. By failing to identify the type of equipment used to measure surface tension, A & R Chrome failed to maintain records of monitoring data required by 40 C.F.R. § 63.343(c) that are used to demonstrate compliance with the standard, in violation of 40 C.F.R. § 63.346(b)(8).

54. A & R Chrome failed to submit a notification of compliance status to the Administrator no later than October 14, 2014, 30 days after the compliance date, and has continued to fail to submit a notification of compliance status, in violation of 40 C.F.R § 63.347(e)(4).

Environmental Impacts of Violations

55. These violations have caused or can cause excess emissions of HAPs (hexavalent chromium). Chronic inhalation of hexavalent chromium has been linked to effects on the respiratory tract, with perforations and ulcerations of the septum, bronchitis, decreased pulmonary function, pneumonia, asthma, and nasal itching and soreness. Hexavalent chromium is also a human carcinogen that, if inhaled, results in an increased risk of lung cancer.

MICHAEL HARRIS Digitally signed by MICHAEL HARRIS
Date: 2022.09.26 10:30:58 -05'00'

Michael D. Harris
Division Director
Enforcement and Compliance Assurance Division